## Paper

Man No. of Pa

01112A

PHYSIOLOGY - I

ital Duration : Section A + B = 3 Hours

Section B Marks: 80

## SECTION - B

structions: 1) Use blue/black ball point pen only.

- 2) Do not write anything on the blank portion of the question paper. Rough work should not be done on the Answer sheet or anywhere on the Question Paper except the specific space provided for the rough work. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - All questions are compulsory.
  - 4) The number to the right indicates full marks.
  - 5) Draw diagrams wherever necessary.
  - 6) Distribution of syllabus in Question Paper is only meant to cover the entire syllabus within the stipulated frame. This format is merely guideline. Questions from the syllabus can be asked in any paper. Students can not claim that the Question is out of syllabus, as this format and distribution has been given only for the sake of placement.
  - 7) Use a common answerbook for Section B.

2. Brief Answer Question (any 10 out of 11):

[10×2=20]

- a) Draw a neat and labelled diagram of ECG in lead II. What are the various segments and intervals?
- b) Enumerate the functions of surfactant.
- c) What is transport maximum? State transport maximum of Glucose.
- d) Enlist hazards of mismatched blood transfusion.
- e) Enumerate the layers of respiratory membrane.
- f) What is basic principle of Dialysis?
- g) List cell organelles. Enumerate functions of lysosomes.
- h) Enumerate functions of saliva.
- i) Classify body fluid compartments and give their values.
- j) Give composition of pancreatic juice.
- k) State the role of free radicals in ageing.

N - 261

PTO.

01112A

To-e-401

Define Blood pressure. State various mechanisms for regulation of blood Short Answer Question (any 8 out of 9):

A 40 year old male complains of nausea, vomiting, anorexia & lethargy.

The renal clearance test shows:

Urea excreted in urine in 1 min=20mg/dl

Plasma concentration of urea= 30mg/dl

· Urine flow rate = 1 ml/min

Define clearance.

Calculate & Comment on urea clearance from above given data.

Name the exogenous substance used as gold standard for measurement of GFR & state its characteristics.

Describe various lung volumes & capacities with help of diagram. c)

Compare & Contrast the cortical and juxtamedullary nephrons.

State stages of deglutition. Describe the Pharyngeal stage of deglutition.

A 30 year old male met with road accident and was brought to emergency unit with severe bleeding. His pulse was thready and his skin felt cold and clammy. He was attended immediately with IV line.

Classify Shock

What are other features of haemorrhagic shock?

Describe the compensatory mechanisms in non-progressive stage of shock.

Give flow chart of erythropoiesis. Discuss the special maturation factors necessary for erythropoiesis.

Define Primary active transport. Describe sodium potassium ATPase h) pump.

Discuss the types of Doctor-Patient relationship. 1)

Long Answer Questions (any 2 out of 3): [2×10=20]

Define Immunity. What are the types of immunity? Discuss in detail the mechanism of cellular immunity.

Define Cardiac cycle & give its duration. Describe the mechanical events occurring during cardiac cycle. Illustrate pressure volume changes with help diagram.

What are the modes of oxygen transport in blood? Describe the Oxygen Haemoglobin dissociation curve with help of diagram. Add a note on factors causing the shifts in curve.



N - 261